

MrSID Application Brief

Browsing Large Images on the Library of Congress Web Site!



The panoramic map was a popular cartographic form used to depict U.S. and Canadian cities and towns during the late nineteenth and early twentieth centuries. Known also as bird's-eye views, perspective maps, and aero views, panoramic maps are non-photographic representations of cities portrayed as if viewed from above at an oblique angle. Although not generally drawn to scale, they show street patterns, individual buildings, and major landscape features in perspective.

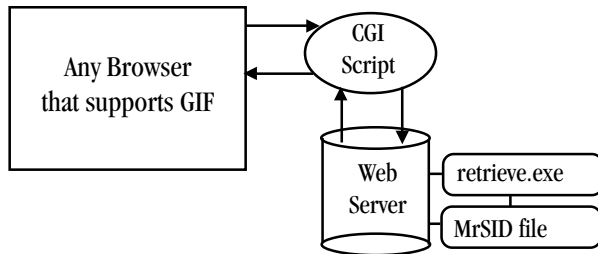
The Library of Congress is bringing these historic maps online! Starting with over 1,726 paper panoramic maps, the LOC is scanning all of them first into TIFF raster image files using a Tangent color scanner. In the following example, the original map was a 46 by 64 cm paper map of Coronado Beach, San Diego Bay and the city of San Diego. Once scanned at 400 DPI and with 24-bit color, it resulted in a 208 Mb TIFF file. As most web developers know, this is far too large to work within a web site unless you're using MrSID! The MrSID version of this map is only a 6.9Mb file, a 30:1 compression.

Since MrSID allows immediate access to any part of an image, of any size, at any resolution using its unique Multi-Resolution browsing capabilities, the LOC uses dynamic user picks *on the actual web view* to serve up the next zoom resolution as another GIF view. Since GIFs are readily supported by web browsers, they were quickly able to get the National Digital Archive up & running!



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How MrSID Works in a Web Browser



This “full” image is a 514 by 396 pixel screen image generated from the actual MrSID file stored on the server. MrSID dynamically extracts -- from within the compressed space of a single file -- the requested view as a GIF file. In this case, the file “served up” to the browser is about a 160k GIF. Using a simple CGI script, this can be easily configured for your particular Internet implementation.



By specifying a “zoom level” on the web page and clicking on the image, MrSID will dynamically extract the requested zoom level (resolution) from the compressed MrSID file and serve a GIF to the browser. The image on the left is about a 227k GIF image.



Another click here with the highest zoom level selected and MrSID automatically serves up the highest zoom resolution from the same - single - compressed image!